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MNEMONICKS—OR, THE ART OF MEMORY.

To enter into an argument to prove the advantages of a retentive memory, is unnecessary; yet, to determine the most effective means of preserving and improving this faculty, has puzzled the most acute metaphysical philosophers. That it is capable of improvement is admitted; and, therefore, the object of our inquiry is, which are the best means! To this question many answers have been given. Temperance, of every kind, unquestionably is the most efficacious negative means. The best positive means most unquestionably is habituating the mind to recollect. It is said of Voltaire that, when a boy, he had a very bad memory, and he remedied this defect by the practice of multiplying by the head, till he arrived at such perfection, that he could determine the product of two factors, each containing twelve places of figures. Thus, by charging the mind with trifles at first, it is, at length, able to bear almost any burden. We know that suffering our limbs or joints to remain in a state of inactivity a considerable length of time, endangers the use of them altogether: on the contrary, the more we accustom ourselves to walking, with the more ease is that exercise performed;—the more our arms are used in athletic exercises, the stronger and fuller of vigour and nerve they become. It is also an acknowledged fact, that the faculties of the mind may become deadened, if not wholly lost, for want of exercise,—amongst the rest, the most valuable of all, the MEMORY. We say the *most valuable*, because the others are useless without it; since it is that chiefly by which the mind is enriched, by

Voltaire.

Necessity of exercise.

preserving whatever our research after knowledge procures. Memory is to the intellectual what economy is to the moral world; since without economy, industry would fail of accomplishing its object, so, without memory, the most laborious study would be nugatory. To a certain extent, this is in the power of every being possessed of reason; but in order to further the object, there have been many artificial modes resorted to. Mnemonics (a systematic memory) was a favourite study of the ancient Greeks and Romans; and those who were the most celebrated for their tenacity of memory acknowledged they were indebted to art for their proficiency; amongst whom might be mentioned Julius Cæsar, Crassus, Seneca, and Cicero: the latter of whom, in a letter to his friend Hortensius, mentions it particularly as being originally the invention of Simonides, who, being hired by Scopas, a rich Thessalian nobleman, to write a panegyric on him, took the liberty to introduce Castor and Pollux into his poem, at which the avaricious Scopas, when Simonides came to the feast to recite his verses, wanted to abridge the price he had agreed to give the poet, saying, "as the twin brothers had shared in the praise, they ought to share in the payment." Accordingly, after dinner, two young men were said to come on horseback and call the poet out, declaring themselves to be Castor and Pollux, and as a punishment to Scopas for his impiety and avarice, they caused the banqueting hall to fall in and bury him and his guests. When their friends came to recover them for interment, they were so disfigured that they could not be distinguished; but Simonides, recollecting the place where each person sat, named them one after the other; "which made known," says Cicero, "that order is the principal thing in helping the memory." "Medallists," says Mr. Addison, "upon the first naming of an emperor, will immediately tell you his age, family, and life. To remember where he enters in the succession, they only consider in what part of the cabinet his medals lie, and by running over in their thoughts such a particular drawer, will give you an account of all the remarkable parts of his reign."

Julius Cæsar.
Crassus.
Seneca.
Cicero.
Simonides.
Medallists.

From the year 1325 to 1765 there were not less than 59 treatises published on the art of assisting memory; but none that deserved the name of *System* appeared till the year 1813, when a work was written

Von Feneigle. on the subject by a pupil of Von Feneigle, a native of Baden, in Switzerland. That work developed a plan which, however deficient in arrangement, laid the foundation of the present system, and made a convert of its chief opponent, in England.* In fine, from every investigation that has been made as to the nature or properties of Memory, it has been found, that Locality and Association are the best channels of reminiscence, and that system the most serviceable, which brings those principles into the most extensive operation. This nature teaches; in proof of which, we appeal to those in the habit of tracing the operations of the mind, for the following facts:—1st. To recollect a circumstance, we endeavour to call to mind the place where it happened, or *vice versa*. 2d. Association of ideas is so interwoven with our nature, that it is impossible to recollect any thing without it, whether we are sensible of it or not. Upon these two principles we proceed to reduce to a systematic arrangement what we are daily and hourly practising.

LOCALITY.—All projectors have fixed upon some method for localizing or placing ideas upon a particular spot or place. Thus, the rafters of a roof, numbered in rotation—the corners of a chamber, with the fire-places, doors, pictures, and various pieces of furniture, have been chosen as the depositories. Others, again, have chosen a naked room, and imagined an M marked upon each wall, and upon each stroke of the letter fixed certain symbols which would bring to their recollection what they wished to remember. But all these being devoid of order and arrangement, lose their effect; and for want of a regular and fixed method, prove too great a burden on the mind. The plan here proposed will obviate this difficulty, and be found easy of attainment.

Different methods.

Imagine yourself in the room with which you are best acquainted, and in the place in which you usually sit;—divide the floor into nine compartments of equal size, by drawing two imaginary lines horizontally, and two perpendicularly, from your seat; place the nine digits in these squares, beginning at your left hand upper corner; of course, you will find 1—2—3 in the first, 4—5—6 in the second, and 7—8—9 in the third, or bottom row. To assist your recollec-

Division of floor.

* Rev. Robert Hall, of Cambridge.

Diagonal lines.

tion where these figures are, you will observe, that if two lines were drawn diagonally, from corner to corner, of the floor, it would intersect all the odd figures, viz. 1—5—9 will be cut by the one, and 3—5—7 by the other line; consequently, all the even numbers, as 2—4—6 and 8, will be found in the opposite squares.

It would be well, before another line is read, for the student to localize these digits perfectly in his mind. See Table 1. Fig. 1.

Having so far progressed, place the same figures, precisely in the same situation, on each of the walls, allowing the room to consist of four. We now proceed to number the walls. The floor and walls, with a part of the ceiling annexed to each wall, are denominated STRIPES. The first stripe, then, is the wall upon your left hand, the second stripe faces you, the third is the right hand wall, and the fourth behind your chair. Then place the number of the stripe on the left hand, before all the digits already fixed on the walls, and you will have numbers 11—12—13 in the top row of the first stripe, 14—15—16 in the middle row, and 17—18—19 in the bottom; 21—22—23 top row facing you, 24—25—26 in the middle, and 27—28—29 at the bottom; 31—32—33 in the top row, on the right hand or third stripe, and 34—35—36 in the middle, and 37—38—39 at the bottom. According to this arrangement, 41—42—43 will occupy the top line on the wall at your back, 44—45—46 the middle, 47—48—49 the bottom of the same stripe. Hence the left hand figure gives the number of the stripe, and the right hand figure, or unit's place, the spot on the wall where that number stands, which exactly corresponds with the floor stripe.

It will be observable, that all the decimal places are wanting, viz. 10—20—30—40 and 50. In order to supply these deficiencies, divide the ceiling into nine parts, as the floor and walls are, then place 10 in the square immediately over 12, on the first wall—20 on the ceiling over 22, on the second wall—30 on the ceiling over 32, on the third wall—40 on the ceiling over 42, on the fourth wall, and 50 in the centre of the ceiling. You have now the number complete. It is observable that 5 will always be found in the centre; for instance, 5 in the centre of the floor stripe, 15 in the centre of the first, 25 in the centre of the second, 35 in the centre of the third, and 45 in the centre of the fourth stripe—while 50 is in the cen-

tre of the ceiling. Fig. 1. exhibits a room divided according to this method. By carefully cutting round the outlines with the point of a penknife, and raising the walls from their prostrate condition, and gently bending over the squares, or straps, to form the ceiling, the room will be complete; and could that be made large enough, or a man be found small enough to be placed in it, he might realize what has been pointed out, divided and numbered. Exercise yourself until the places and numbers are so familiar that one glance of thought will bring any of them to your "mind's eye," without regard to order.

We would particularly caution the reader not to proceed further in the development of this system, till he is perfectly familiar with what has already been said.

HIEROGLYPHICS.—We now proceed to fill up the squares with sensible objects; and though they appear to be a heterogeneous mass, they are so systematically arranged, as to be found perfectly easy of attainment; for they are not arbitrarily mixed and jumbled together, but methodically arranged, in nine series—excepting the floor stripe and ceiling, whose hieroglyphics bear an analogous resemblance to their respective numbers.

In the first square of the floor stripe is the representation of a glass-house;—but it is necessary that you so far accommodate the vision to the fancy, and the fancy to the vision, as to imagine that you see, not merely a picture, but the object itself, for reasons which will hereafter appear. In the second square we see a swan, swimming towards the glass-house; its arched neck forms the figure 2. In the right hand corner an archer's bow, and, as the string happens to be next the swan, forms the figure 3. Upon your left, in the fourth square, a couch, or easy chair. Esculapius, the god of physic, is in the fifth square, the serpent twining round his stick, emblem of his wisdom, forms the figure 5; but as every one has a favourite doctor, or Esculapius, of his own, place him there if you please. A retort forms the figure 6 in the sixth square, and a sythe makes an excellent 7, as the spectacles do the figure 8. The Nautilus' shell answers for the figure 9, and thus the floor stripe is furnished with its hieroglyphics. On the straps, or squares, which form the ceiling, in the tenth square, is a lamp, the globular part of it forming a 0, and the glass which contains the light a 1, which makes 10. In

Explanation of.

the twentieth square is a sun-dial—the dial part makes the 0, and the gnomon, or stile, forms the 2—that is 20. The globe, with three feet, in the thirtieth square, forms 30, and in the fortieth square the balloon, whose air-distended bladder forms the 0, and the four ropes that sustain the car make 40, and the eye in the centre forms 50, which finishes the ceiling.

Explanation of the nine series.

The hieroglyphics on the walls are divided into nine series, and a stripe is composed of a hieroglyphic from each. Here the same observation holds good which was made upon the figures; for as the figure to the left denotes the stripe, and that to the right hand the place, so here again, the first, or left hand figure, gives the stripe, and the second, or right hand figure, denotes the series. Thus, the first series are pillars, and contain the numbers 11—21—31—41, that is, one pillar, two pillars, three pillars, four pillars. The second series are heads, 12—22—32—42, that is, one head, two heads, three heads, four heads. The third series are feet, 13—23—33—43, one foot, two feet, three feet, four feet. The fourth series are lines, containing the numbers 14—24—34—44, that is, one line, two lines, three lines, and four lines. The fifth series are planets, and comprise numbers 15—25—35—45, and are arranged in astronomical order, beginning with the sun—it being in the centre of the planetary system, as number 5 is of the mnemonic. The sixth series, signs of the zodiac, numbers 16—26—36—46, arranged also in astronomical order, beginning with Aries. The seventh series, 17—27—37—47, are composed of what might be denominated nameless, as not being easily classified,—yet having a connection or dependence, as industry and plenty, idleness and folly. The eighth series are the four quarters of the globe, numbers 18—28—38—48. The ninth series, 19—29—39—49, are the four seasons of the year. But in order to assist the student, we annex the following schedule of the hieroglyphics, numbered to correspond with Table No. 4.

Floor Stripe.	1 Glass-house,	2 Swan,	3 Bow,
	4 Couch,	5 Esculapius,	6 Retort,
	7 Mower,	8 Spectacles,	9 Nautilus.
First Stripe.		10 Lamp,	
	11 Cleopatra's Needle,	12 Sphynx,	13 Feet,
	14 Compasses,	15 Sun,	16 Aries,
	17 Industry,	18 Europe,	19 Spring.

Second Stripe.		20 Sun-dial,	
	21 Hercules Pillars,	22 David,	23 Goliath,
	24 Keys,	25 Mercury,	26 Taurus,
	27 Plenty,	28 Asia,	29 Summer.
Third Stripe.		30 Globe,	
	31 Pyramids,	32 Cerberus,	33 Tripod,
	34 Ship,	35 Venus,	36 Gemini,
	37 Idleness,	38 Africa,	39 Autumn.
Fourth Stripe.		40 Balloon,	
	41 Monument	42 Cherubs,	43 Elephant,
	44 Fiddle,	45 Terra,	46 Cancer,
	47 Folly,	48 America,	49 Winter.

Centre of Ceiling.
50 Eye.

Second Room.

Hieroglyphics.—Although one room is quite sufficient for any ordinary purpose, yet as fifty more hieroglyphics may sometimes be found necessary, we shall proceed to furnish another room.

This room is divided precisely in the same manner as the other; but here we call the floor the fifth stripe, commencing where we left off in the first room, both as respects the hieroglyphics and numbers, as well as the series.

Of second room explained.

By referring to table 5, in the first square of the floor, (51,) that is, fifth stripe, first series, you will find five pillars being the piers of a bridge; in the second square (52) are five heads, a bird's nest—heads being the second series; in the third square (53) beggars, a man with one foot, his wife, (I suppoes she is,) and child—five feet; feet being the third series, and this floor the fifth stripe.

By carefully observing the series, and the number and place of each, you will be enabled, with ease, to commit them to memory, being cautious not to deposit a hieroglyphic in a wrong square. The subjoined list, displays the names and numbers of the hieroglyphics, to correspond with table 5.

Fifth Stripe.			
	51 Bridge,	52 Nest,	53 Beggars,
	54 Lyre,	55 Mars,	56 Leo,
	57 Faith,	58 Earth,	59 Hunting.

Sixth Stripe.		60 Bell,	
	61 Portico,	62 Laocoon,	63 Grasshopper,
	64 Triangles,	65 Jupiter,	66 Virgo,
	67 Hope,	68 Air,	69 Shooting.
Seventh Stripe.		70 Miser,	
	71 City,	72 Hydra,	73 Trestles,
	74 Gate,	75 Saturn,	76 Libra,
	77 Charity,	78 Water,	79 Sailing.
Eighth Stripe.		80 Bacchus,	
	81 Temple,	82 Medusa's head,	83 Beetle,
	84 Ladder,	85 Herschel,	86 Scorpio,
	87 Love,	88 Fire,	89 Gaming.
Ninth Stripe.		90 Horn,	
	91 Grove,	92 Muses,	93 Sacrifice,
	94 Harper,	95 Comet,	96 Sagittarius,
	97 Revenge,	98 Smoke,	99 Prison.

Centre of Ceiling.

100 Peacock.

It is observable, that these hieroglyphics are not only arranged in series, but, for the further assistance of the memory, there is a kind of connecting chain between them. For instance, the first of the seventh series in the first room, (17,) Industry, is followed by its natural concomitant, in the second of that series, (27,) Plenty; the third of the same series, (37,) Idleness, produced by, or the offspring of, (47,) Folly. The same series in the second room are, (57,) Faith, (67,) Hope, (77,) Charity, being three cardinal virtues, and (87,) Love, which, when disappointed, sometimes produces (97) Revenge. So in the eighth and ninth series, the former of which, in the first room, are the four quarters of the globe, and the latter the four seasons; in the second room are, for the eighth, elements, and amusements for the ninth; the fifth of the eighth series, in the second room, (58,) Earth, is joined to the fifth of the ninth series, (59,) Hunting; the sixth of the eighth series, (68,) Air, is connected with the sixth of the ninth, (69) Shooting, and (78,) Water, succeeded by (79,) Sailing; then (88,) Fire, followed by (98,) Smoke—(89,) Gaming, closed with (99,) a Prison.

Explanation of series.

To a contemplative mind, the very arrangement of these hieroglyphics affords food for moral reflections,

by connecting them according to the series.——Let the thoughts rove from the contemplation of the ingenious productions of art manufactured in a Glass-House, (1) to those stupendous works, Cleopatra's Needle, (11) Hercules' Pillars, (21) and the Pyramids; (31) but while we admit the ingenuity displayed in their construction, they serve only as Monuments (41) of the vanity of man, which displays itself in the erection of splendid Bridges, (51) Porticos, (61) Cities, (71) and Temples; (81) but we prefer, to the contemplation of these, the calm scenes of the Grove (91.) Examples of this kind might be multiplied, but we think it much better for the student to form his own connections, as they will be the easier remembered.

Necessity of committing to memory.

The reader cannot be too often reminded of the necessity of having the hieroglyphics strongly impressed upon his mind; for, that once attained, the greatest difficulty is overcome. To expect any solid advantage from this system, without having the places and appearances of the hieroglyphics familiar to the mind, would be like attempting to build a substantial edifice upon a foundation of quicksand;—therefore, it is necessary to study and digest them well, and to be familiarized to *seeing* the objects—not merely to know where they are placed, and their names, but what they represent.

Need not commit all.

It is not insisted that the learner should get *all* the hieroglyphics stored in his mind—that is not expected; the *whole* of them he may never have occasion to use. It will be sufficient, in the first instance, to attain the first 19, that is, from Glass-house to Spring, the last figure of the first stripe; a great number of facts can be deposited with these hieroglyphics. Having become perfectly acquainted with the arrangement, the student can become master of the remainder of the figures as he finds occasion to use them.

Best way to commit.

In order to facilitate the remembrance of the hieroglyphics, it would be well to make sketches of them, (no matter how rough,) the larger the better, and place them in their proper situations in a room—one view would imprint them more indelibly on the mind than an hour spent in reading. A lady, who had studied this system, for the purpose of implanting upon the minds of her children the various lessons they daily received from their tutors, employed her daughter, who was a proficient in drawing, to take copies from each hieroglyphic, of a large size, and then

placed them in their proper situations—the consequence was, she has declared, that her children would commit to memory more in half an hour, in their room, when thus furnished, than in a week by any ordinary method. But should this be thought too great a task, it would be of some advantage to cut out the hieroglyphics from the plate, and place each stripe against its respective wall.

We have now completed the first part of the principles upon which this system is founded, and shall proceed to the consideration of the other part—Association.

Association.—Mnemonics consists of two parts; namely, Localization, or having fixed and particular places for depositing our ideas; and Association, or train of ideas, which naturally flows from or follows the other; for instance, if something is related under a certain tree, or upon a particular spot—if I recall such conversation, the spot or object near which it occurred will inevitably appear also. Should an old man wish to recall the boyish transactions of his youth, a walk over the green where he had formerly gamboled, would recall to his mind the companions of his sports, with their features and characters, in a more forcible manner, and portray them in his imagination in more lively colours, than any thing he could have recourse to.—The sight of a house where a valued and lamented friend has lived, or a solitary walk in a garden or field where we formerly used to walk and converse together, has a greater effect upon our retentive faculties, as far as respects that person, or our former colloquial intercourse, than hours spent in any other manner; in short, the sight of any object, whether it be a hill or a valley, a bridge or a river, where any particular circumstance has taken place, provided we are previously in possession of the facts, will remind us of them, and make a more lasting impression, than the most animated description, unaided by those objects.

Its nature and use.

As chronology, geography, astronomy, &c. are intimately connected with dates and numbers, and as figures, especially if they consist of several places, are very difficult if not impossible to remember, we substitute letters instead, and that for two reasons:—1st. Out of these letters words can be formed, and words in themselves are easier committed to memory than numbers, and 2d. By words we can have ideas

Letters rather than figures.

of form and substance, which by association bring to view the facts we wish to remember.

MNEMONIC NUMERALS.—The following scheme exhibits the consonants placed in their regular alphabetical, and the figures in their numerical order, each two consonants answering to a figure, excepting in two instances, where *j*, *k*, and *z*, are linked together, and *l* stands by itself.

Common Numerals.

B C	D F	G H	JKZ	L	M N	P Q	R S	T V	W X
1	2	3	4	5	6	7	8	9	0

From this arrangement it is plain, that either of the letters that are linked together, may answer to the corresponding figure over which it stands; and further, as no vowels are used, any vowel may be taken, which, in conjunction with the consonants, whose corresponding figure you want, will make a word best suiting your ideas; for instance, you want number 12, then either *bad*, *bid*, or *bud* will do, since it is evidently of no consequence what vowel you make choice of. Again, a*c*i*d*, *b*e*a*d, or *b*e*e*f will answer as well, so far as regards the letters; yet it is sufficiently obvious that the words bad, bid, bud, acid, bead, and beef, convey very different ideas; but there are five-and-twenty different words which stand for the number 12 only, by the various combinations of these four consonants with the vowels, including y, which is always used as a vowel in common numerals.

Use of letters for figures or numbers.

In order further to assist the reader in the recollection of numerals, it might be a good exercise to commit to memory the following sentence, which, however devoid of sense, will inevitably impress on the mind the figures correspondent with the consonants:

1 2 3 4 5
A *cub* for *food* took a *hog*, and made a *joke z* of an *eel*,
6 7 8 9 0
when a *man*, in a *pique*, *rose* and made a *vat* of *wax*.

It is observable, that those monosyllables which are in italics contain all the consonants under their respective figures.

EXAMPLES OF COMMON NUMERALS.—Battle, = 1,995; daggers, = 23,388; perpendicular, = 78,762,158. Here it is

much easier to recollect the word perpendicular, than to remember seventy-eight millions seven hundred and sixty-two thousands one hundred and fifty-eight, and the reader may be assured, that by practising in these numerals, he will, much sooner than he expects, be enabled to enumerate the word, so recollected, as easily as the figures themselves.

In order to give greater scope for the choice of words to express ideas, the following consonants are used, which, either as prepositions or terminations, stand for what are denominated great numerals, having decimal powers:

GREAT NUMERALS.—W or X, = 10; St, = 100; Th, = 1,000: Sh, = 10,000; Ch, = 100,000; Y, = 1,000,000.

Examples.—As prepositions, great numerals add the power of the succeeding consonants to their own; thus,

Wine, = 16; Star, = 108; Thorn, = 1,086; Shuttle, = 10,995; Chalk, = 100,054; Yes, = 1,000,008.

But as terminations, they have the power of multiplying their preceding consonants:

New, = 60; Rest, = 800; Earth, = 8,000; Dish = 20,000; Arch, = 800,000; Say, = 8,000,000.

From the foregoing examples, it will be perceived that the words wine, win, wane, wain, wen, or won, must be 16, because *n* being = 6, and *w* beginning the words, having the power of adding 10, makes 16, while the words, maw, mew, onyx, new, now, mow, or mix, must be 60, because the letter *n* or *m* being = 6, and *w* or *x* ending the words, has the power of multiplying by 10. Again, star, stare, stair, steer, stays, stir, or store, although conveying very different meanings, must be 108—*st* having the power of 100, and that of the *r* or *s*, 8; the words rest, rust, roast, or roost, is 800, because *st* has the power of multiplying the preceding *r* = 8 by 100, &c. &c.

Should a word or sentence begin and end with a great numeral, the first only must be reckoned as such—the succeeding consonants being all common numerals; for instance, the word Billy is 155,000,000, *y* ending the word, and having the multiplying power of 1,000,000, while Willy is only 155, because *w* being a great numeral, and beginning the word, adds 10 to the succeeding consonants, *ll*, = 55, and *y* not being amongst the common numerals, cannot be reckoned—having lost its power as a great numeral, by being

preceded by *w*, so, likewise, in the word church, which is only 100,813, because the last *ch* has lost its power as a great numeral by being preceded by another *ch*.

We now come to the application of this system, as associating our ideas with the hieroglyphics, hoping that the student has at least so far progressed as to be perfectly acquainted with the arrangement of them, and completely master of the numerals; if not, it would be far better to reconsider and study with diligence the foregoing sections.

APPLICATION TO CHRONOLOGY.

As it is best for the student to make his own associations, there will no more be given in each of the sciences than will serve as mere examples. We begin with Chronology. The kings of England will come first under our consideration, commencing with

William the Conqueror.

William the Conqueror, who, as the first of that race, we place by the Glass-house, which is the 1st hieroglyphic; and as we must use some symbol or sensible object which will make a lively impression on the imagination, in order to assist the memory, place any thing by it that will remind you of William; for instance, a Willow-tree, which being contracted is *Will*. We now only want something for the date, or time of his accession to the throne, which was 1066—but as it is usual to give the fraction for the whole date, any word that gives 66 will answer the purpose. Therefore one Willow-tree, growing by the Glass-House, and the *moon*, which according to the numeral system is = 66, shining upon it, gives the following facts, viz.—the Glass-House shows that William was the first of that race, *one* Willow-tree that he was first of the name, and the *moon*, = 66, the year when he ascended the throne. Should the student wish to connect an historical fact with the picture, let him hang a garland of laurel on the tree, and it will remind him that William I. was called conqueror.

William II.

Agreeably to this arrangement, with the Swan we place *two* Willows, for William II. In order to make it more picturesque, suppose the Swan swimming on a lake, and a Willow growing on each side, (a very natural idea,)—tie a *rope* from one of the trees to the other, and the word rope will give the year of William II's accession, *r-p* = 87—make the rope red, and it gives his surname, Rufus, or red-haired; between the trees imagine a distant view of an abbey,

this will remind you that he was the founder of Westminster Abbey. With the Bow, which is the 3d hieroglyphic, you can put a Hen, for Henry; let it be a dead one, for Henry had killed it with his bow, and is lamenting over it, as it was his *best* hen; the word best gives 100, the year of his accession. The word *best* is considered as a *great numeral*, otherwise it would be 189—*st* should always be considered as a great numeral at the end of words. The bow being an ancient instrument of war, may remind you that in this reign commenced the first war between England and France. Upon the couch, place any friend of the name of Stephen—(he being the only one of the name, a symbol is unnecessary.) If he be a musician, so much the better, but if not, suppose him to be a learner, for he is playing on the *bugle*, = 135, the year he ascended the throne. Esculapius is endeavouring to catch two Hens—an odd employment for a physician, but as he is a good-natured doctor, he perhaps wants them to make soup for some patient—he has nearly caught them under his *cloak*; the word cloak, = 154, gives the year Henry II. began to reign. By the Retort, which is the 6th hieroglyphic, stands a Rich man, who is about trying an experiment, and has got a *brat* of a boy to kindle a fire under the Retort;—here we have *one* Rich man for Richard I. the sixth king of England, whose accession is given by the word *brat*, = 189. The seventh king was John, and as the Mower has not got a name, we will call him John the Mower, especially as there has been but one king of England of that name. Mowing being laborious work, we may suppose John thirsty, and place a *butt* by his side, as the word gives 199, the year of his accession—imagine him mowing in Runemede, and you will recollect his wars with the Barons, when Magna Charta was obtained. Look through the Spectacles, the eighth hieroglyphic, at those three Hens, and call out *face me*, which words give 216, the year Henry III. began his reign. With the Nautilus' shell, we must place the ninth king of England, Edward I., one Ward, or Guard, therefore, will be an appropriate Symbol for him. The Nautilus' shell being a beautiful and expensive natural curiosity, we will suppose the soldier had purchased one, but was by some means *duped*; the word *duped*, = 272, being the year of Edward's accession to the throne.

Henry.

Henry II.

Richard I.

John.

Henry III.

Edward I.

As it would be tedious to go through the whole series in this manner, a plan is subjoined, as far as is requisite for this purpose, with the mnemonic words and symbols, merely keeping in view, that the names of the hieroglyphics are in small capitals, the symbols in roman, and the mnemonic words in italic letters. A diagram is also added of the first nine kings of France, as an example, commencing with the Capetian race; in like manner any succession of monarchs may be connected with the hieroglyphics, being careful to use separate rooms for different countries, as no one would think of writing or printing two subjects one over the other, and in all cases let the ideas be kept *distinct* and *clear*.

FIRST	10—LAMP. 2 Guards. *Go wipe.*	STRIPE.
11—CLEOP. NEE. 3 Guards. *Good pay.*	12—SPHYNX. 2 Rich men. *Hop up.*	13—FOOT.* 4 Hens. *Got a toe.*
14—COMPASSES 5 Hens. *Oak cage.*	15—SUN. 6 Hens. *Jaded.*	16—ARIES. 4 Guards. *Knob.*
17—INDUSTRY. 5 Guards. *Jeer age.*	18—EUROPE. 3 Rich men. *Yoke a rogue.*	19—SPRING. 7 Hens. *Oak rail.*

* Henry IV. being the first king of the house of Lancaster, whose insignia was a white rose, a white rose can be placed upon the instep of the hieroglyphic, to remind us of that fact. Immediately under it, on one of the ram's horns, place a red rose, the insignia of the house of York, of which Edward IV. was the first monarch, and the mnemonic *knob* on the other horn. Under that again, at each end of the *oak rail*, place a rose, the one red, the other white, and you have the union of the two houses in the person of Henry VII.

SECOND	20—SUN DIAL. 8 Hens. *Eli exit.*	STRIPE.
21—PILLARS. 6 Guards. *Leek pie.*	22—DAVID. May pole. *All hay.*	23—GOLIATH. LIZARD. *Lilies.*
24—KEYS. 1 Chain. *Now go.*	25—MERCURY. 1 Chariot. *Madly.*	26—TAURUS. 2 Chariots. *Maim ox.**
27—PLENTY. 2 Chains. *No rule.*	28—ASIA. 3 Willows. *An ass.*	29—SUMMER. Anne. *Paved.*

THIRD	30—GLOBE. 1 George. *Pack.*	STRIPE.
31—PYRAMIDS. 2 Georges. *Paid up.*	32—CERBERUS 3 Georges. *Pain & woe.*	

* It would appear, by subtracting *Madly* (625) from *Maim ox*, (660,) that Charles I. reigned 35 years, because according to the custom in the chronology of kings, an interregnum is never noticed—one king's reign always begins where the last ends —"Kings never die;" but in fact, Charles I. reigned only 24 years, as he was beheaded in 649, (*one kite,*) which kite, if tied to *one log*, (653,) will show when Cromwell was declared Protector; and that subtracted from *maim ox* gives 7 years, the time of the protectorship.

SOVEREIGNS OF FRANCE.

FLOOR STRIPE.

	1—GLASS-HOUSE	2—SWAN.	3—BOW.
* Robert II.	Hugh.	2 Robes.*	1 Hen.
	Tye a rope.	*Too vain.*	*Hub.*
	4—COUCH.	5—ESCULAPIUS.	6—RETORT.
† Philip I.	1 Phial.†	6 Louis d'ors.	7 Louis d'ors.
	Mix.	*Bower.*	*Big pie.*
	7—MOWER.	8—SPECTACLES.	9—NAUTILUS.
	2 Phials.	8 Louis d'ors.	9 Louis d'ors.
	Borax.	*Dye a dog.*	*Diadem.*

We have now gone through with the floor stripe—and it was necessary to be somewhat diffuse, in order to show how the ideas are connected; for it is absolutely necessary that the hieroglyphic should be connected by a chain of ideas with the symbol and mnemonic word, because by this means we not only know where a king enters in the succession, by regular rotation, but can also tell, at one thought, the numerical order of any king, from the conquest, without counting; for instance, I wish to know who was the 20th sovereign—I think immediately of the 20th hieroglyphic, where I see a sun-dial, surrounded by eight Hens, (Henry VIII.) upon the dial is engraved a very common motto for such a purpose—*eli exit*, = 509, the year when Henry began his reign. Again, who was the 24th king? look in the 4th square of the 2d stripe, and you will see *keys*, (24,) with one Chain for James I. Imagine, then, a person chained and double-locked—one inclined to taunt might say, *now go!* = 603., &c. &c. But the student is at perfect liberty to use such symbolic and mnemonic words as suit his own ideas, being careful not to alter the hieroglyphics so as to derange the series.

GEOGRAPHY comes next under consideration. This subject is in itself so abstruse and difficult to comprehend, that the

ancients, when they reduced it to a science, were obliged to have recourse to that part of mnemonics which draws imaginary lines; hence the parallels of longitude and latitude—the equatorial and tropical lines were formed to assist the imagination; and therefore it is, that youth can so easily form a tolerably correct conception of the relative situations of different parts of the earth. But we think that, by a judicious application of this system in all its component parts, the recollection of facts already known, if not the *study* of Geography, will be greatly facilitated.

Mercator's and Newton's projections.

There are two different projections of the globe; one called Mercator's, the other Newton's. The former supposes the earth to be in the form of a cylinder, with the parallels of longitude running ad infinitum, without ever coming to a point, and the parallels of latitude encircling the earth like the hoops of a barrel. The latter supposes the earth to be globular, and the parallels of longitude meeting at the north and south poles.

Geographic rooms.

For the purpose of applying this system to Geography, we provide two rooms of equal size, one exactly over the other, and forming the interior of the globe. Imagine yourself seated in the middle of the floor of the upper room, which will be in a relative situation to the centre of the earth, the floor representing the plane of the equator, or what is emphatically called the line, as being the grand geographical division of the earth into the northern and southern hemispheres —the upper room containing all countries north, the lower room all countries south of the equator. In the division of this mnemonic globe, we follow Mercator's plan upon the walls of the rooms; and Newton's on the ceiling of the upper, and floor of the lower, projection.

Division of.

Divide each wall into nine spaces perpendicularly, which we will call ladders: draw two diagonal lines from corner to corner of the ceiling of the upper and on the floor of the lower room, which will divide them into four triangles, each triangle appertaining to its own wall, which are called 1st, 2d, 3d, and 4th stripes, (beginning at the left hand as usual,) including the triangle to the centre of the ceiling; from whence, also, draw lines, gradually diverging till they join the perpendicular ones on the walls. The centre, where these lines meet, is the north pole on the ceiling over

head, and the centre of the floor of the lower room, corresponding with this ceiling, of course is the south pole. Thus, you have 36 ladders with their apex or points—that is, 9 upon each stripe; and counting each ladder 10° will give 360, the circumference of the earth—all the degrees of longitude meeting at the poles.

Meridian.

All geographers have some place from which they reckon their east or west longitude, and call it their meridian. The English reckon from London, or rather the Observatory at Greenwich; the French—some from Paris, others from Ferro, one of the Madeira islands; the Dutch from Amsterdam; the Americans from Philadelphia or Washington. But whatever place you call your meridian, place it on the left corner of the 1st stripe, where it joins the 4th, then count 90° east longitude on your first stripe, and 90° on the second, making 180° east, and beginning at the same place, count 90° on the fourth stripe, and 90 on the third, it will make 180° west longitude—consequently that corner will form the antipodes to your meridian.

Parallels of latitude.

For parallels of latitude, divide the ladders into 6 steps, from the floor or equinoxial line upward, to the ceiling of the upper or northern; and 6 steps down, to the floor of the lower or southern room. This is done by drawing 5 horizontal lines at equal spaces round the rooms, each step 10° of north latitude, reckoning upward to the ceiling, and 10° of south latitude downward to the floor of the lower room; so that you have every place up to 60° north latitude on the walls of the room you are in, and every place up to 60° south, on the walls of the room beneath; divide your triangles upon the ceiling and floor, each into three, by drawing two horizontal lines from each diagonal one, and you will have three steps, each 10°, up to the poles; but as there is very little known past 60° north, and still less south of that latitude, you will have little use for them.

Numbering the ladders.

We now proceed to point out the method of numbering the ladders and steps, for placing the hieroglyphics. This is done by first counting the ladders, beginning at your meridian corner—thus, 1-2-3-4-5-6-7-8-9 east, and the same west, upon each wall; then count the steps 1-2-3-4, &c. from the floor upward to the north pole, and the same downward to the south. Now prefix the number of the ladder, or longitude, and affix the number of the step, or latitude; thus, the

first step of the first ladder will be 11; the first step of the second ladder 21, &c.; the sixth step of the ninth ladder will be 96, and upon the eighth ladder and seventh step 87, &c. Table 1, Fig. 2, exhibits one wall with its appendant triangle, divided and numbered as has been described.

Latitude and longitude shown by ladders, steps, &c.

Upon the first ladder east or west will be found every place lying between the meridian from which you reckon, and 10° east upon the first wall, and 10° west upon the fourth; and upon the first step of these ladders all places between the equator and 10° north in the upper, and 10° south in the lower rooms—casting aside the ciphers, the two 1's making 11. Again, upon the second ladder will be found all places between 10 and 20° east or west longitude, and upon the second steps of those ladders all places between 10 and 20° north or south latitude; so that the ninth ladders contain all places between 80 and 90° east on the first, and west on the fourth walls; and on the fourth steps of those ladders, all places between 30 and 40° north in the upper, and south in the lower rooms; this serves for the first and fourth walls, as containing all places from the meridian of longitude up to 90°, either east or west. But all places lying between 90 and 180° east, will be found on the second wall, and all places between 90 and 180° west, on the third; all you have to do, then, is to add nine to the number of the ladder, and it will give the degrees of longitude—the number of the steps, that is, latitude, always continuing the same. Thus, upon the fourth ladder of the second wall, what is the longitude? 130° east, because 9 and 4 are 13, the cipher always being supplied. Upon the sixth ladder of the third wall, what is the longitude? 150° west, by the same rule, 9 and 6 being 15, that is, all places between 120 and 130° east in the former, and all places between 140 and 150° west, in the latter example. What is the hieroglyphic for the 34° longitude and 14° latitude? Cherubs, 42; for it is between the 30th and 40th of longitude, and the 10th and 20th of latitude; and we always, agreeably to rule, take the longitude for the first, and latitude for the second figure, up to the highest number or next decimal place. Again, what is the hieroglyphic for longitude 122, latitude 41? Terra, or the 45th hieroglyphic—as 122 is more than 90, it must be on the second wall if it be east, or upon the third if it be west longitude; therefore, subtract

9 from 12, the two first figures, or add the two first figures together, and it will make 3=32 between the 30th and 40th degrees of longitude; so take 4, the highest number, and prefix it to 5, the latitude required being between 40 and 50, and it will make 45.

Good Hope. What is the hieroglyphic for the Cape of Good Hope, and where must it be placed? 34 Ship, on the first wall of lower room, third ladder, fourth step, for the longitude is about 21° east, and the latitude 35° south, therefore as it is more than 20° we must take the next decimal, viz. 30, which will bring it on the third ladder, and as it is under 90 east, it must of course be on the first wall, and being above 30° latitude, of necessity it will be on the fourth step; and lying south of the line, it must be in the lower room. Once more—

St. Helena. the island of St. Helena is between 4 and 5° west, and 8° south, therefore in the first step of the first ladder on the first wall, 11, Hercules' pillars, in the lower room.

After making yourself master of the local situation of a continent, island, ocean, sea, kingdom, nation, or country, you can at once fix it on your mind by associating the names and any particular circumstance relative to it with its respective hieroglyphic; thus—

St. Paul. the island of St. Paul is situated in the South Sea, 115° west longitude, (from London,) 18° south latitude; therefore, agreeable to rule, it will be on the second step of the third ladder, third wall of the lower or southern room—the hieroglyphic will be 32, Cerberus; and as the Apostle Paul was an eminent champion for truth, and so successfully opposed the prince of darkness, only localize the hieroglyphic in its proper place—which is in every case indispensably necessary; and imagine that you see Paul contending with Cerberus—and, whether you consider the Apostle contending with the superstition which invented the fabulous monster, or with that power which he was meant to represent, the idea is natural, and will answer the purpose.

ASTRONOMY.—Of all the sciences with which man is acquainted, there is none so dependent on hieroglyphics as astronomy; indeed, it may be said to rest wholly upon them, as far as respects the view of the heavens, when reduced to that regularity which enables us to form any tolerably correct ideas of the numerous stars and vast orbs which bespangle them. Hence, imagination has formed shapes of the constellations, and given

names to them and the planets in order that we may know them. This system, then, is admirably calculated to record in our memories facts relating to the subject. For this purpose, two rooms are requisite—divided, and the hieroglyphics localized in precisely the same manner as for general geography. In studying astronomy upon a celestial globe, the pupil must imagine it transparent, and himself in the centre; otherwise the stars at the right on the globe, must be looked for on your left in the sky, and *vice versa*; —here, that difficulty is obviated, for seat yourself as in the geographical rooms, and you will be surrounded by the stars in their proper places. Though it would be absurd, in geography, to talk of any place being more than 180° east or west, 180 being the semicircumference of the earth, yet in astronomy it is different, as the longitude of a star or planet is reckoned from *Aries* eastward, quite round the globe, 360° on the ecliptic. Aries must be placed in the same corner in these rooms, as the meridian from which you measured longitude in geography, only close to the floor of the upper room, that being the ecliptic. We count from Aries up to 90° on the first or left-hand wall, from 90 to 180 on the second, from 180 to 270 on the third, and from 270 to 360° on the fourth, up to Aries again. In order to determine the number of the ladder upon either of these walls, pursue the same method as in geography, with the first and second walls, *i. e.* the nine ladders on the first, speak for themselves, and on the second add nine to the first or longitudinal figure—but as in astronomy there is no east and west, but all east, you must add 18, or two nines, to the number of the ladder on the third, and 27, or three nines, on the fourth wall; or what is still easier, add the two first figures of the longitude together, and it will give the ladder. Suppose a star has 299° 30′ longitude—as it is above 299 it must be considered as 300, and as 3 added to 0 is still 3, it will be on the third ladder, and being above 270° it must be on the fourth wall, which agrees with the former rule; for if you add 27 on the fourth wall to 3, the number of the ladder, it gives 30, and by supplying the cipher, which is uniformly done, it makes 300. Again, a star being observed to be in longitude 243, that being a fraction, it comes on to the next decimal, viz. 250—add 2 and 5 together =7 consequently the 7th ladder, and on the third wall

Two rooms.

From Aries to Aries 360 degrees.

Not east and west 180° each.

being more than 180, and less than 270; also agreeable to former rule add 18, for third wall to 7, number of the ladder, and it gives 25—add 0=250. Once more, a star 160° longitude, 6+1=7, or 9 subtracted from 16=7 or 9+7=16—it is all one, therefore, on the seventh ladder, second wall, being more than 90 and less than 180°. The latitude, or distance north or south, is the same in astronomy as in geography. It is usual, however, in speaking of the stars, to make use of the terms right ascension instead of longitude, and north or south declination instead of latitude. Agreeably then to this arrangement, suppose a star is observed to have 198° right ascension and 32° south declination—where am I to place it? In the lower room on the third wall, being south and above 180, and on fourth step, second ladder, 24, Keys. Again, a star having 293° right ascension, and 67° north declination—in what part of the astronomical rooms must it be placed, and by what hieroglyphic? On the seventh step of the third ladder, and the fourth wall of the upper room, 37, Idleness. By the same rule you may easily find out where to place any star, after having ascertained its ascension and declination; and as there are not names given to all the stars, you can, if you please, give one which will associate with its respective hieroglyphic. Thus, by the help of a lively imagination, you may point at once to them—tell their situation, and call their names.

Right ascension, declination, &c.

What has been said, only applies to the local situation of the constellations, or stars of which they are formed. Those who wish to retain astronomical facts as respects calculations, will only have occasion for one room, divided in a very simple and easy manner, viz. each wall into three ladders, with one horizontal line running round, midway from the ceiling to the floor. At the foot of each of these ladders, place a sign of the zodiac, beginning as usual at the left hand of the first or left wall—place them in their regular astronomical order, beginning at Aries, so that Aries, Taurus, Gemini, will be at the foot of the ladders on the first wall, and Cancer, Leo, Virgo, at the foot of the ladders on the second, &c. On the second step of each ladder, calling the floor one, place the planets in their regular order, beginning with Mercury, nearest the Sun—of course Mercury will be on the step over Aries—Venus will be over Taurus, and our earth

Arrangements for astronomical facts, calculations, &c.

over Gemini, &c. But as there are only eleven planets, you may place a comet over the twelfth sign, Pisces, which will of course be found on the twelfth ladder, fourth wall. In the centre of the floor, place the Moon, across which write the word *fabric*, and in the centre of the ceiling place the Sun, and if you please, (for reasons which shall hereafter appear,) depict Sol, with poetic license, in a chariot drawn by *race horses*. Thus have we furnished our room with apparatus for application to business, and making it subservient to our purpose by a regular association of ideas; and having a fixed principle to go upon, all that is necessary will be, to acquaint yourself with facts, such as the number of stars in a constellation, the number of each magnitude, the diameter of each planet, its diurnal motion, distance from the Sun, time of revolution, &c. and make this into mnemonic words or sentences, and associate them with the planet or sign to which it refers.

In our next number, we shall apply this subject to *Statistics*, *Languages*, *Botany*, *Modern History*, *Ancient History*, *Daily Occurrences*, *Poetry*, *Prose*, *Figures*, *&c. &c.* and furnish the necessary tables of hieroglyphics, together with the rooms, exhibiting the floors, walls, ceilings, roofs, series, stripes, ladders, steps, &c. for the study of General Geography, Modern and Ancient History, Statistics, Daily Occurrences, &c. &c.